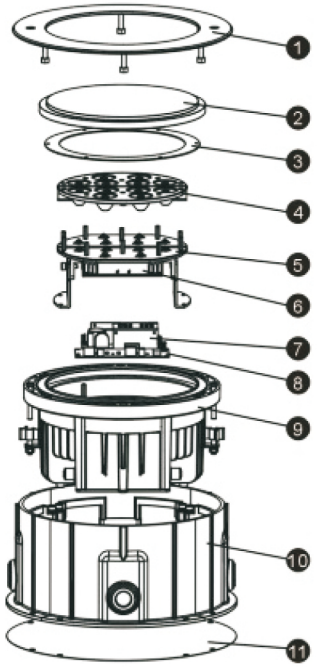
5 APPENDIX

5.1 TROUBLE SHOOTING

LED MODULE

SITUATION	CAUSE	ACTION
Can not receive DMX signal	1) DMX signal cable error 2) Signal connection error 3) The input signal IC damaged 4) DMX address error	1) Check all signal cables 2) Check all signal connections 3) Check the input signal IC 4) Check DMX address
Color mixing uneven,with splash	1) LED not joining well 2) Lens not installing well	1) Check LEDS joining 2) Check lens installing
Partial color （partial red,partial green or partial blue）	1) The current of one color LEDs is too strong or too weak 2) LEDs brightness not enough	1) Check drive current of each color in Main PCB 2) Check LED quality
LEDs of the same color are not lit	1) LED or Main PCB damaged	1) Replace damaged LED or Main PCB

5.2 MAINTENANCE



No	ITEM
1	Stainless steel cover
2	15mm template glass
3	Diaphragm
4	LED Plate
5	LED PCB
6	Heat sink
7	Power switch
8	Control board
9	Inner housing
10	Outer casing
11	Dustproof board

EXPOLITE

TerraLED 36 CM

USER MANUAL

Version 1.0

TABLE OF CONTENTS

PART 1 PRODUCT (GENERAL).....1.

1.1--PRODUCT INTRODUCTION.....1.
1.2--PRODUCT FEATURES.....1.
1.3--TECHNICAL SPECIFICATIONS.....1.
1.4-- PHOTOMETRIC DATA .....2.
1.5--SAFETY WARNING.....2.

PART 2 INSTALLATION.....3.

2.1--MOUNTING.....3.
2.2--WIRING DIAGRAMS.....4.
2.3--ADJUST THE BEAM ANGLE .....4.
2.4--POWER CONNECTIONS.....5 .
2.5-- SIGNAL CONNECTIONS.....5.
2.6-- SETTING UP WITH A DMX512 CONTROLLER .....6.
2.7-- SETTING UP WITH THE PiX CONTROLLER.....6.

PART 3 CONTROL WITH A DMX512 CONTROLLER.....7.

3.1--CHANNEL ASSIGNMENT.....7.
3.2--BASIC INSTRUCTIONS FOR DMX512 OPERATION.....9.

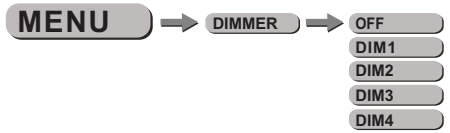
PART 4 USING THE DMX CODER.....10.

4.1--TECHNICAL SPECIFICATIONS.....10.
4.2--SETTING PARAMETERS .....10.
4.3--BASIC.....11.
4.4-- MENU .....11.
4.5-- DMX ADDRESS .....12.
4.6-- PERSONALITY .....12.
4.7-- CALIBRATION .....12.
4.8-- DIMMER .....13.
4.9--STATIC.....13.

PART 5 APPENDIX.....14.

5.1--TROUBLE SHOOTING.....14.
5.2--MAINTENANCE.....14.

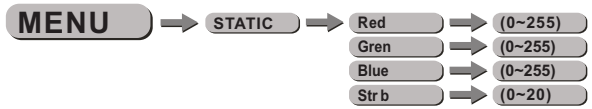
4.8 DIMMER



【*DIMMER*】

- Enter the 【*DIMMER*】 to select the dimmer work mode, press【*Enter*】
- When Dimmer is set to 【*OFF*】 the RGB and Master Dimmer are linear,
- When selecting 【*DIM1*】, 【*DIM2*】, 【*DIM3*】 or 【*DIM4*】,the RGB and Master Dimmer are nonlinear
- These4 dimming modes have different soft and smooth dimming effects from fast to slow

4.9 STATIC



【*STATIC*】

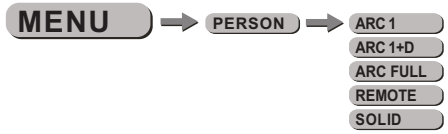
- Enter the 【*STATIC*】 mode to create the programs
- Combine 【*RED*】, 【*GREEN*】and 【*BLUE*】 to create an infinite range of colors
- Set the value of the 【*STROBE*】 【*0-20Hz*】
- The static setting will be valid when the fixture is powered again

4.5 DMX ADDRESS

【*DMX*】

- Enter the 【*DMX*】 mode to set the DMX address, press【*Enter*】
- On successful setting, the fixtures will display Green and turn off after ten seconds
- If an error occurs when setting, the fixtures will display Red or no response

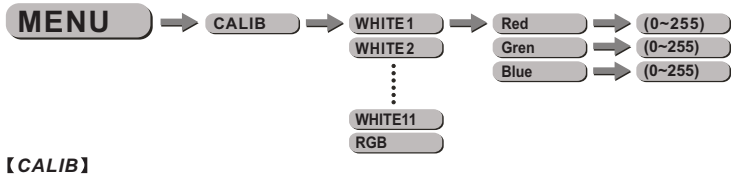
4.6 PERSONALITY



【*PERSON*】

- Enter 【*PERSON*】 and select 【*ARC 1*】/【*ARC1+D*】/ 【*ARC FULL*】/【*REMOTE*】/ 【*SOLID*】 mode, press【*Enter*】
- When selecting【*ARC 1*】/【*ARC1+D*】/ 【*ARC FULL*】/【*SOLID*】, the fixture is under the DMX work mode.
- When selecting【*REMOTE*】, the fixture is ready to receive signals from the PiX Controller

4.7 CALIBRATION



【*CALIB*】

- Enter the 【*CALIB*】 to select white colors of different color temperature
- There are 11 pre-programed white colors plus RGB and can be edited by using 【*Red*】, 【*Gren*】, or 【*Blue*】,press【*Enter*】 to set the values
- While working under【*ARC FULL*】, 【*WHITE1-9*】 means the different color temperature white 1 to white 9 of CH5
- Select 【*RGB*】to set the ratio of 【*Red*】, 【*Gren*】, and 【*Blue*】on DMX channels, achieving different white colors

1 PRODUCT (GENERAL)

1.1 PRODUCT INTRODUCTION

This product is designed for outdoor architectural applications. It can be operated both as a single unit and in multiple units for large applications.

1.2 PRODUCT FEA TURES

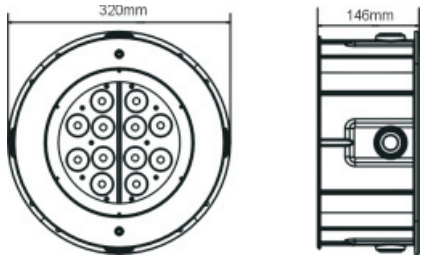
LED FIXTURE

* RGB dimmer 0-100%
* Color macro
* RGB calibration
* Strobe
* Dimmer speed control
* Static Function
* DMX512 control
* Compatible with the PiX Controller
* Lightweight aluminum casing
* IP67 protection rating

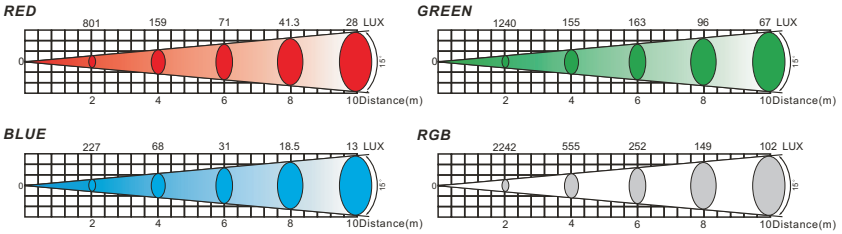
1.3 TECHNICAL SPECIFICATIONS

LED MODULE

LED MODULE:	
Voltage	AC100~240V...50/60Hz
Rated Power	46W
IP	IP67 PROTECTION RA TING
LED/Unit	12pcs (tri-color)
Output/LED	3W
Environment Temperature	-20℃~40℃
Cooling	Direct air convection
Dimensions	Φ320 x146mm
Weight	8Kg



1.4 PHOTOMETRIC DATA



1.5 SAFETY WARNING

IMPORTANT

【ALWAYS READ THE USER MANUAL BEFORE OPERATION.】
【PLEASE CONFIRM THAT THE POWER SUPPLY STATED ON THE PRODUCT IS THE SAME AS THE MAINS POWER SUPPLY IN YOUR AREA.】

- This product must be installed by a qualified professional.
- Always operate the equipment as described in the user manual.
- A minimum distance of 0.5m must be maintained between the equipment and combustible surface.
- The product must always be placed in a well ventilated area.
- Always make sure that the equipment is installed securely.
- DO NOT stand close to the equipment and stare directly into the LED light source.
- Always disconnect the power supply before attempting maintenance.
- Always make sure that the supporting structure is solid and can support the combined weight of the products.
- The earth wire must always be connected to the ground.
- Do not touch the power cables if your hands are wet.

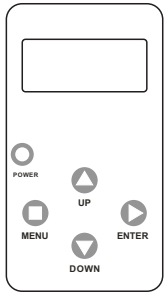
ATTENTION

ATTENTION

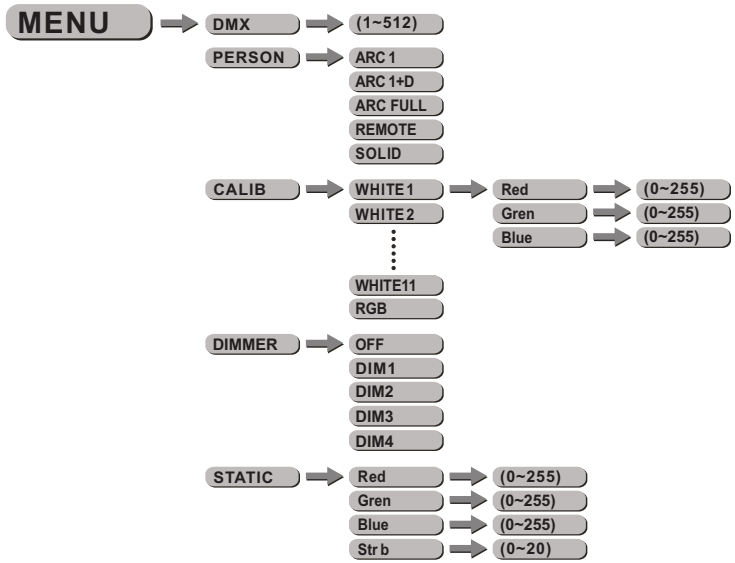
- This product left the place of manufacture in perfect condition. In order to maintain this condition and for safe operation, the user must always follow the instructions and safety warnings described in this user manual.
- Avoid shaking or strong impacts to any part of the equipment.
- Make sure that all parts of the equipment are kept clean and free of dust.
- Always make sure that the power connections are connected correct and secure.
- If there is any malfunction of the equipment, contact your distributor immediately.
- When transferring the product, it is advisable to use the original packaging in which the product left the factory.
- Shields, lenses or ultraviolet screens shall be changed if they have become damaged to such an extent that their effectiveness is impaired.
- The lamp (LED) shall be changed if it has become damaged or thermally deformed.

4.3 BASIC

【 POWER】 Power on
【 MENU 】 Scroll through the main menu or exit from the current sub-menu (press and hold to turn off power)
【 ENTER 】 Enter the currently selected menu or confirm the current function value
【 DOWN 】 Scroll 'DOWN' through the menu list or decrease the value of the current function
【 UP 】 Scroll 'UP' through the menu list or increase the value of the current function



4.4 MENU



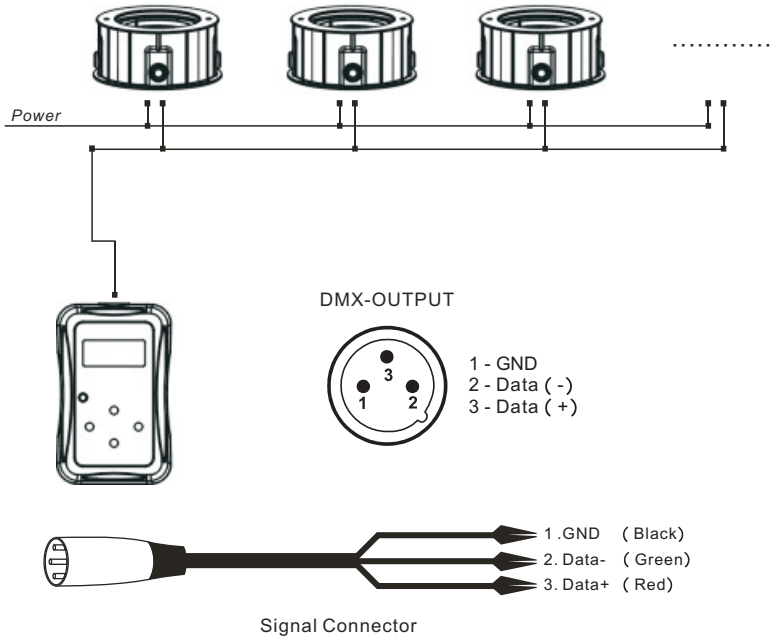
4 USING THE DMX CODER

4.1 TECHNICAL SPECIFICATIONS

LED MODULE:	
Battery	2 x 1.5V DC
Dimensions	110 x 70 x 28mm
Weight	0.2Kg

4.2 SETTING PARAMETERS

- Connect the DMX Coder to the units in series
- Set the DMX address, Personality, Calibration and Dimmer of fixtures through the DMX Coder
- A maximum of 20 units in series can be set by the DMX Coder at the same time
- All connected units will be set with the same information



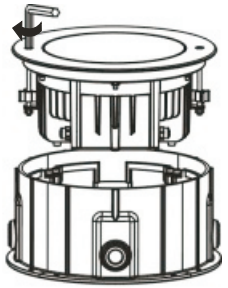
Signal Connector

Note: The DMX Coder will automatically power off after extended periods of being idle (1 minute)

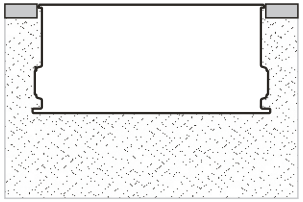
2 INSTALLATION

2.1 MOUNTING

- Embed the outer casing first before installing the fixture.

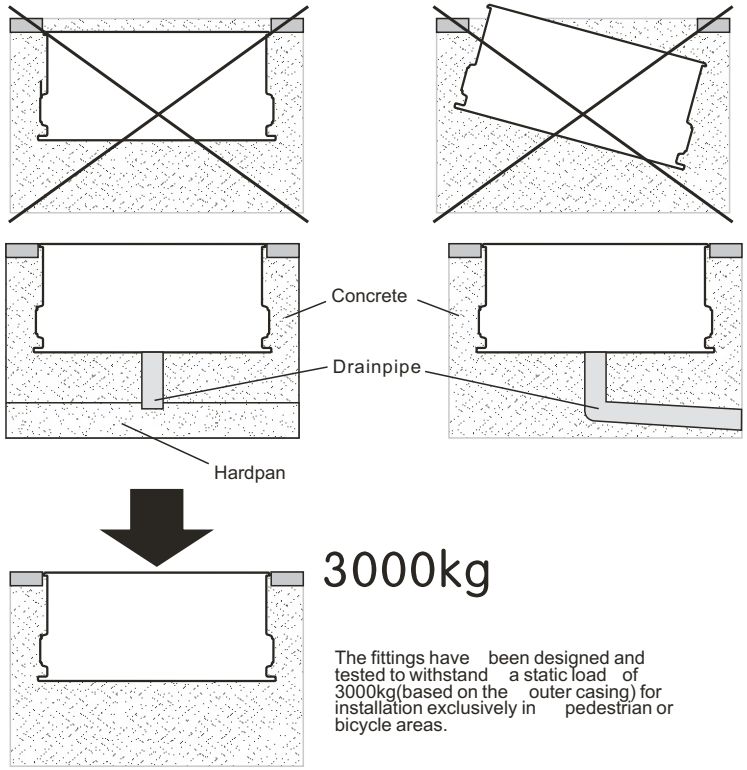


NOTE: When installing the collar, ensure that one of the cable outlets is perpendicular to the target illumination surface.



OK

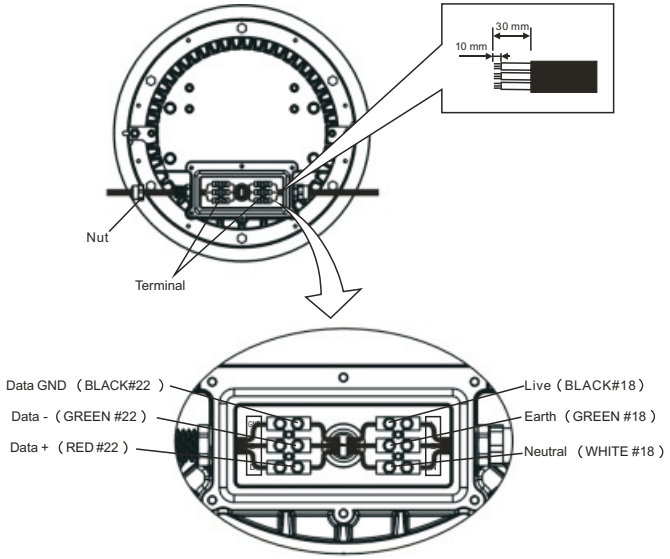
NOTE: The stainless steel cover should not exceed the ground..



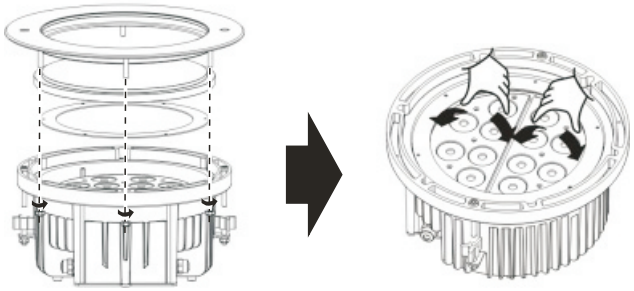
The fittings have been designed and tested to withstand a static load of 3000kg(based on the outer casing) for installation exclusively in pedestrian or bicycle areas.

2.2 WIRING DIAGRAMS

- Unscrew the junction box and remove the cover. Fetch the terminal for cable connection.
- Put the cable(Φ6.5~8mm) throught the junction box.
- Tighten the terminal with the cable according to the instruction.
- Screw the junction box.



2.3 ADJUST THE BEAM ANGLE



NOTE: The bolts that secure the frame to the body must be fully tightened in a uniform manner, altermating between diametrically oposed bolts. To facilitate the extraction of the glass without damaging the seal fitted onto the frame, unscrew all the nuts except for two adjacent ones and wait a few seconds; then unscrew the remaining nuts and remove the glass.

3.2 BASIC INSTRUCTIONS FOR DMX512 OPERATION (ARC FULL)

MASTER DIMMER
- CH1 controls the intensity of the currently projected color
- When the slider is at the highest position (255) the intensity of the output is the maximum

RED, GREEN & BLUE COLOR SELECTION
- CH2, CH3 & CH4 control the intensity ratio of each of the RED, GREEN, BLUE LEDs
- When the slider is at the highest position (255) the intensity of the color is the maximum
- CH2, CH3, CH4 can be combined together to create over 16 million colors

COLOR MACROS
- CH5 selects the required COLOR MACRO
- CH5 has priority over CH2, CH3, CH 4
- CH1 is used to control the intensity of the COLOR MACRO

STROBE
- CH 6 controls the strobe of CH1 to CH 5

DIMMER SPEED
- CH 7 is used to select the kind of dimmers curve required

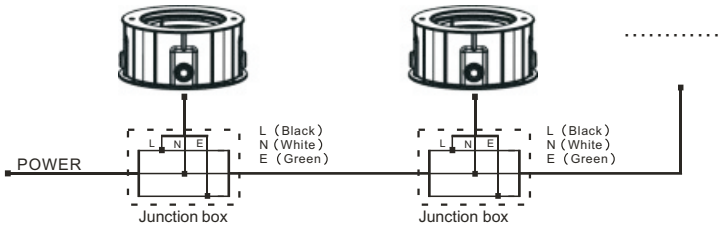
CHANNEL	VALUE	FUNCTION
5	51⇔70	RED 0%/GREEN100%/BLUE UP
	71⇔90	RED 0%/GREENDOWN/BLUE 100%
	91⇔110	RED UP/GREEN 0%/BLUE 100%
	111⇔130	RED 100%/GREEN 0%/BLUE DOWN
	131⇔150	RED 100%/GREEN UP/BLUE UP
	151⇔170	RED DOWN/GREEN DOWN/BLUE 100%
	171⇔200	RED100%/GREEN100%/BLUE100%/WHITE100%
	201⇔205	WHITE 1: 3200K
	206⇔210	WHITE 2: 3400K
	211⇔215	WHITE 3: 4200K
	216⇔220	WHITE 4: 4900K
	221⇔225	WHITE 5: 5600K
	226⇔230	WHITE 6: 5900K
	231⇔235	WHITE 7: 6500K
	236⇔240	WHITE 8: 7200K
	241⇔245	WHITE 9: 8000K
	246⇔250	WHITE 10: 8500K
	251⇔240	WHITE 11: 10000K
6		**STROBE**
	0⇔9	NO FUNCTION
	10⇔255	FROM SLOW TO FAST
7		**DIMMING SPEED**
	0⇔9	Return to DIMMER
	10⇔29	OFF (Dimmer speed off)
	30⇔69	DIM1 (Speed 1, the fastest)
	70⇔129	DIM2 (Speed 2)
	130⇔189	DIM3 (Speed 3)
	190⇔255	DIM4 (Speed 4 ,the slowest)

SOLID

CHANNEL	VALUE	FUNCTION
1	0⇔255	**RGB & MASTER DIMMER**

2.4 POWER CONNECTIONS

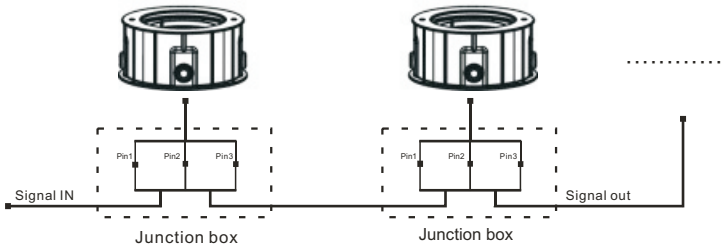
The input wires of this product must tri-core ,as folowing :



2.5 SIGNAL CONNECTIONS

Pins a nd Fun ction s :

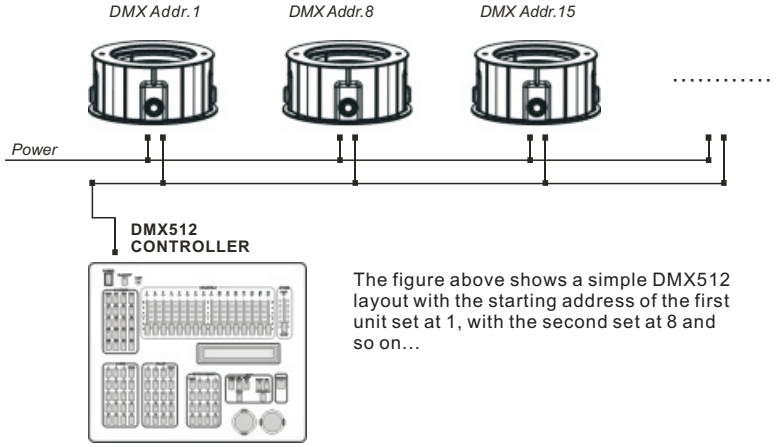
It is advised for greater stability that if over 20 units to be connected, or the total signal cable length is over 60 meters, a DMX signal amplifier should be used.



Pins	Functions
Pin1 (black)	Gnd/0
Pin2 (green)	Data input (-)
Pin3 (red)	Data input (+)

2.6 SETTING UP WITH A DMX512 CONTROLLER

- Connect the units in series,using standard DMX cable or IP 67 cable provided
- Set DMX address using a DMX coder
- Each DMX Address may be used as many times as required
- Any DMX address in the range from 001 to 512 may be used
- Connect the DMX512 controller to the units

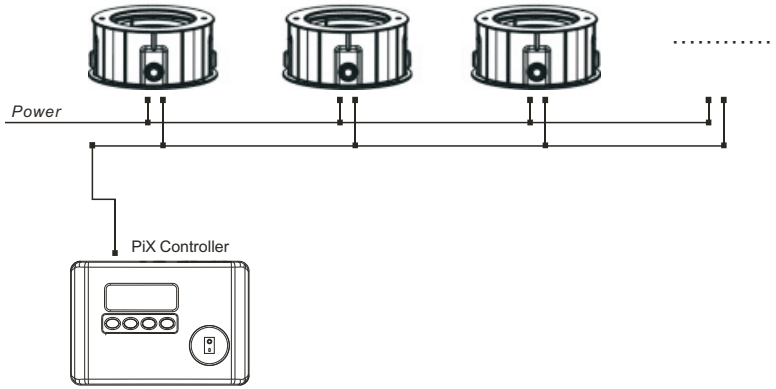


The figure above shows a simple DMX512 layout with the starting address of the first unit set at 1, with the second set at 8 and so on…

2.7 *SETTING UP WITH THE PiX CONTROLLER*

- The fixture can also be controlled by the PiX Controller, set the fixture as 【***REMOTE***】 via the DMX coder before using the PiX controller

Note: For details, please refer to the user manual of the PiX controller



3 CONTROL WITH A DMX512 CONTROLLER

3.1 CHANNEL ASSIGNMENT

- Note: This product has five DMX512 channel configurations: 【***ARC 1***】, 【***ARC 1+D***】, 【***ARC FULL***】, 【***SOLID***】.

ARC 1

CHANNEL	VALUE	FUNCTION
1	0 ⟺ 255	RED
2	0 ⟺ 255	GREEN
3	0 ⟺ 255	BLUE

ARC 1+D

CHANNEL	VALUE	FUNCTION
1	0 ⟺ 255	MASTER DIMMER
2	0 ⟺ 255	RED
3	0 ⟺ 255	GREEN
4	0 ⟺ 255	BLUE

ARC FULL

CHANNEL	VALUE	FUNCTION
1	0 ⟺ 255	MASTER DIMMER
2	0 ⟺ 255	RED
3	0 ⟺ 255	GREEN
4	0 ⟺ 255	BLUE
5		COLOR MACRO
	0 ⟺ 10	NO FUNCTION
	11 ⟺ 30	RED 100%/GREEN UP/BLUE 0%
	31 ⟺ 50	RED DOWN/GREEN 100%/BLUE 0%